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ABSTRACT

Instructional applications of Q methodology (a set of procedures that can be used in studying the subjective nature of things) provide a means for teaching communication skills, analyzing thinking patterns, making comparative analyses, and structuring intrapersonal processes. Taking the best from quantitative and qualitative research methods, Q-Technique provides a new and creative approach to interdisciplinary teaching. The method seems particularly suited to humanities education by providing a means for students to formulate a Q-Sort based on content from many different fields. By using Q-Methodology, students can even test theories in the field they are studying to see if their thinking processes support the theories. Two major ways that the Q-Technique can be used in teaching the humanities involve students or the teacher compiling a list of statements for a Q-Sort using literature as the source of statements and compiling a list of statements for a Q-Sort using interviews. Anyone using a Q-Sort should consider the various discussions about the advantages and statistical soundness of using a structured Q. (A sample study conducted by students in a communication class on the effect of alcohol use on interpersonal communication is included; 25 references and 2 appendixes containing a questionnaire for a Q-Sort of the effects of alcohol use on interpersonal communication and the Q-Sort are attached.) (RAE)

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Using Q Technique in Teaching Humanities: Including a Student Designed Q-Sort on the Effects of Alcohol Use on Communication

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A paper presented at the annual conference of the National Association for Humanities Education, Kansas City, MO, April 21, 1989.

Abstract: The purpose of this paper is to explain the basic techniques used in Q analysis and to provide a framework for implementing the method in classroom instruction. Instructional applications of Q provide a means for teaching communication skills, analyzing thinking patterns, making comparative analyses, and structuring one's intrapersonal processes. Taking the best from quantitative and qualitative research methods, Q-Technique provides a new and creative approach to teaching humanities in an interdisciplinary way. The paper includes an example Q-sort and analysis of a study on the effects of alcohol use on communication interaction.

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As a teacher in communication studies, our field is sometimes panned for our lack of theoretical development and our need to take interdisciplinary approaches to research and instruction. This "impure" nature of communication studies has given us a broad perspective, freeing us to look to all fields of study. Our scholars are continually debating, however, whether we belong in the humanities or the social sciences. Certainly the humanist and the behavioralist approach education differently. Young (1981) explained one difference when he wrote:

> Whereas the humanist educator might provide values clarification and stimulation activities to generate the necessary environmental conditions, the behaviorist would recommend that students be trained as controllers of their own environments. (p. 93)

Instead of arguing over whether we belong in one area or the other--and the debate continues as our national association considers a name change--we in communication studies could feel proud and pleased that we belong in both the humanities and the social sciences. Not only should we try to integrate areas of the humanities--e.g. when studying the role of music and literature in the historical context of a particular film--but so we can integrate the social sciences--e.g. when examining the social effects of that same film. As Adelson contended, "up to this point the social sciences have been most fruitful as a new and

alternative mode of humanistic discovery and interpretation. In psychology, Freud is the most obvious discovery but our other great thinkers--James, Piaget, even Skinner--will survive not through their scientific findings but as humanistic visionaries" (p. 106).

So as scholars and teachers of interdisciplinary studies, communication academicians need an approach to teaching that builds upon the techniques of the humanist and the behavioralist. Here enters Stephenson's Q-Methodology or Q-Technique (Stephenson, 1953). The method has demonstrated its ability to combine perspectives in some 1500 studies over the past fifty years (Brown, 1986, p. 72). Although originally designed for research in the field of psychology, the method has received widespread use across many disciplines. Because of Stephenson's training in both the physical and behavioral sciences--a Ph.D. in physics and a Ph.D. in psychology--he has developed a method that can serve as the science of subjectivity. If plotting it on the research continuum of qualitative to quantitative approaches, Q-Technique would probably fall in the middle range. While the method studies subjective human processes, it also applies quantitative analysis to the study.

Although Q-Technique has proven itself effective in certain types of research, it apparently provides a brand new approach to instruction. The method seems particularly suited to humanities education in several ways:

1. Teaching Communication Skills. Students can improve their communication skills as they conduct interviews to collect statements for the Q-sorts.
2. Analyzing Thinking Patterns. The technique allows student self-discovery. While they conduct the Q-sort they must sort their feelings about statements. They are required to think. In addition, when they analyze the results they then must think about how they think.
3. Making Comparative Analyses. When students are allowed to analyze their thinking patterns, they also can make comparative analyses between their thinking and the thinking of others. Data can easily be collected from each student in a class and may even include their important friends so that students can compare their thinking to other students and a significant other.
4. Structuring One's Subjective Intrapersonal Processes. People cannot generally think about how they think and come to new understandings. Q allows investigation of any area of study or combination of areas. As Brown (1986) explained, a person's "viewpoint [will] remain implicit (that is, present but undetected) unless provided with some instrumental medium, such as a Q-sort, for transforming it into a manifestation" (Brown, 1986,

> p. 73). Regarding their understanding of cognitive processes, people may be unaware of their intrapersonal processes, and the existence and influence of stimuli (Nisbett & Wilson, 1977, p. 231). Thus, the Q method can enable the researcher to discover feelings and patterns he or she cannot discover in other ways.

In addition, Q-Technique provides a means for students to conduct interdisciplinary study because they can formulate a Q-Sort based on content from many different fields. If using Q-Methodology, student can even test theories in the field they are studying to see if their thinking processes support the theories. The purpose of this paper is to explain how Q-Technique can be used as an instructional method. After explaining Q-Technique in general terms, this author will consider the use of Q-Technique in humanities education, discuss issues of applying the instructional technique, and provide an example taken from the classroom.

What is Q-Technique?

"In a nutshell," Q-Methodology is a set of procedures that can be used in studying the subjective nature of things. Whether the teacher incorporates theory into a measure (Q-sort) or allows the data to suggest an explanation, the teacher and students will obtain

person-types (prototypes) of thinking patterns of people through principles of factor analysis.

Q-Methodology is the more complicated process of developing theory-based measures in research. Q-Technique is the more simple process of developing a Q-sort to examine idea or concept. Q-Technique is the principle considered here to provide a new, interesting, and effective method of classroom instruction.

Probably the best way to begin understanding the process is by completing a Q-Sort, such as the one in Appendix 1. The Q-sort is different from most paper-and-pencil measures, in that the respondent sorts statements (pictures or other materials) according to an agree--disagree (pleasure--unpleasure) continuum. Instead of responding with one's agreement to each statement, the respondent sorts each statement to be placed on an grid that shows the relationship between statements.

Using Q-Technique in Humanities Education

In his discussion about the meaning of humanities, Greene (1969) explained the importance of the study of culture, particularly as it relates to the ideal (p. xviii). These two concepts fit well with Q-Technique. By interviewing people and acquiring statements from their common language, we have a vehicle that reflects culture. The logic of Q is based on communication processes in that the Q statements represent language common to the people

involved. After completing one Q-sort, for example, the respondent said: "I've never done one of these kind of tests in which the language was so clear." The explanation for the "clarity" is that the statements are the wording of the people interviewed to compile statements for a Q-sort--not the researcher's or teacher's language--and normative in a sense. The measure is not normative from the standpoint that it will mean the same thing to everyone, but from the standpoint that it should evoke meaning from everyone. The statements should represent the culture.

Many teachers of humanities are interested in approaching instruction from an interdisciplinary point of view. In fact, some academicians say that the future will require all educators to use a more interdisciplinary approach. As Martin (1982) explained about humanities:

> Although there are writers and artists, dancers and actors, historians and classicists practicing their professions, developing their skills, and producing works of art or novels or historical studies within the college, it is not these activities that make the institution's relationship with the humanities and arts something special. Again, if people want only to do history or write novels or stage plays, they can arrange for all that elsewhere. What is unique about the college's relationship with the humanities and arts is that the faculty and students insist on mixing

> disciplines, getting into the history of art, the social significance of the theater, and so on. The college is the place where studies count most when they relate to one another, where skills are acquired and applied not as mere techniques but with concern for their meaning and their effects. (p. 49).

But even in interdisciplinary approaches, many educators believe that a study of the subjective nature of humans is important. Bailey (1984) advocated that a major purpose in the study of humanities was not simply to understand human practices, but "rather to try to understand human understanding and action itself in the most general way" (p. 118). Because Q not only allows the individual to sort their own thoughts but to compare them in the context of the thoughts of others, Q-Technique gives the understanding of self and helps one to "understand human understanding" in a more general way. In Yagle's perspective: "The scientific process has taught us to seek knowledge instead of truth, for truth has been revealed as relative and transitory" (p. 22). Stephenson might disagree, saying that all we have is subjective truth in all areas of study. Longstreet (1982) made a suggestion for studying subjectivity:

> One major way of dealing with subjectivity is to study oneself in the same way that one would study others so

> that more "detached" comparisons of behavior may be achieved. (p. 149)

Stephenson's analysis allows for such "detached comparisons." The student can first indicate how he or she compares concepts by completing the Q-sort, then the student's responses can be compared to the responses of other students (or any other subjects the teacher chooses).

In addition, the results will give "ideals" or "prototypes" regarding the typology of different thinking patterns. These ideals may not be defined the same way the humanities teacher might define them, but they will be defined by the responses of the students who complete the Q-sort. Hicks (1981) contended that teachers still measure students against an "Ideal Type." Neither teachers nor students measure up perfectly, but some come closer than others (p. 43). Instead of measuring against an abstract ideal, when student use Q-Technique, they measure against real people: anyone from scholars in the field to their own classmates. These students can see if their thinking pattern is similar to others, if they have developed a unique approach, or if they are more closely aligned those with "unhealthy" or atypical beliefs.

There are two major ways that Q-Technique can be used in teaching the humanities. First, the teacher and/or students can compile a list of statements for a Q-sort using literature as the source of statements. The teacher or

students need only to think of an area to be studied, then they can collect statements for an appropriate Q-sort. Some examples might include (a) statements that characterized the philosophy of great thinkers throughout history, (b) pictures of paintings representing different schools of art, (c) quotations from the major leaders of the Western world, or any other appropriate subject. If the students have a textbook, for example, the chapters could be divided among students, and each student instructed to "come up with five statements of opinion or feeling that represent the ideas." The teacher can then compile the list, taking the most interesting, representative, and thought-provoking statements for the Q-sort.

Second, the students can compile a list of statements for a Q-sort using interviews. In a class of thirty students studying literature, for example, ten students could be assigned each to interview faculty members who teach literature, ten could be assigned to interview various friends and relatives, and ten could be assigned to interview writers. The teacher could give students a basic structure for the interview, or allow students to be open-ended in talking about literature (depending upon the direction desired by the teacher). The students can make recordings or use note-taking skills to compile 10 interesting statements that represent the interviewees' feelings and opinions about literature.

Instructional Conditions in Using Q-Technique

This author began using Q-Technique as the core basis for teaching an undergraduate course in interpersonal communication. The following educational objectives in using Q-Technique were provided to those students:

1. To allow students to contribute to the advancement of knowledge, which includes testing theories found in the literature.
2. To encourage students to study areas of interpersonal communication in which they are interested.
3. To teach interviewing techniques.
4. To stimulate interpersonal discussion with another person(s) of importance to the student.
5. To structure the student's thinking on specific interpersonal communication issues.
6. To compare each student (and their "significant other") to classmates in order to provide insight into their feelings and the feelings of those students around them.
7. To teach students a scientific method for investigating and solving problems.

This author generally follows several steps regarding the instructional conditions of using Q-technique:

1. Students were allowed to select any topic of study.

2. Students conducted interviews or read course-related materials to obtain statements.
3. The teacher selected from the lists of statements those that best represented feelings and opinions about the topic under discussion.
4. Students sorted the statements by actually completing a Q-sort. Some students also asked friends to complete the Q-sort.
5. The teacher used a computer program to analyze the Q-sorts.
6. The teacher gave the students the results for their analysis. Students conducted their analysis individually, then discussed their interpretation as an entire class.

Issues of Application

Among those who have analyzed the value of Q-Methodology, Kerlinger (1986) cautioned users regarding inappropriate applications. Although the method has proven its heuristic value and ability to uncover new relationships and conceptualizations, it remains controversial (personal conversation, Stephenson, January, 1987). Because this author is suggesting the use of Q-Technique in instruction, only a few of the issues of appropriate application are relevant here: sample size, the size of the Q-sort, and construction and administration of the Q-sort.

Sample Size. In most behavioral research, scholars generally think the larger the numbers the better the study. A large sample is not needed with Q-Technique, which makes it perfect for use with a small class. Although some Q studies use large numbers of subjects, most rarely use more than approximately 50 subjects. Stephenson basically has argued for 40 to 60; Kerlinger has suggested 60 to 80. For validity, one does not need more than that in most cases, and with a large sample one is likely to find a severe regression to the mean (resulting in a one factor solution).

In Stephenson's discussion of "intensive analysis" he recommends using Q for single case studies. There is ample evidence that the method can be used successfully for a sample of one person up to thousands of persons, which means that a small class can conduct a valid study. The method has been proven effective in analyzing the "phenomenological world of the individual (or of small numbers of individuals) without sacrificing the power of statistical analysis" (Stephen, 1985, p. 193). For example, one application of Q would be to have a single individual sort statements under different conditions. A graduate class of five students, for example, could conduct a given Q-sort under several condition, such as: "How do you feel today?" "How would Aristotle sort these statements?" "What is the ideal way to sort these statements?" One instructor has students sort

statements under ten different conditions, a process which may be too repetitious for most people.

Q-Sort Size. Long Q-sorts can be time consuming and confusing. The 52 statement Q-sort in this study took most students between 10 and 20 minutes to complete. Other Q-sorts take much longer. Although most people find the unique nature of Q-sorting fun to do, a long Q-sort can become tedious. The ability to discriminate levels of agreement accurately with large numbers of statements also raises certain questions. Investigators must determine the exact size--of people and statements--based on the pilot study and needs of the specific research (Stephenson, 1967, p. 17-20) and determine for themselves whether they consider the method appropriate for large surveys (Cataldo, Johnson, Kellstedt, & Mildrath, 1970). Teachers should base the size of their Q-sort on the number of quality statements obtained from students and adequate coverage of the idea under study.

Construction and Administration of a Q-Sort. Three methods are commonly used in initiating statements for a Q-sort: the literature, interviews, and focus groups. The statements do not have to be statements as evidenced by studies in which Stephenson developed Q-sorts that use color swatches and pictures. Anything one can sort according to a continuum works.

Generally, five factors affect how complicated the Q-sort will be: (a) it's length, (b) the simplicity or

complexity of the statements, (c) how familiar the respondent is with his or her ideas on the subject, (d) whether or not a theoretical structure is built into the measure, and (e) the individual's thinking patterns. Although the Q-sort given in Appendix 1 is a simple one, others are not. As one student complained, "the last time I did one of your Q-Sorts I worked on and off for two days." This student probably would take a long time doing any Q-sort, however, because he enjoys looking at ideas from a variety of angles.

When one considers the unique nature of Q-sorts, one can understand the administrative problems they present. Each Q-sort is copied on paper or cardboard stock, then cut up into a stack of statements (papers or cards). Those statements may be bound by a rubber band or placed in an envelope, for example. The actual process of cutting the statements and preparing each Q-sort is a time consuming one that may take several people hours. If the researcher uses small numbers or several small groups, considerable time can be saved in the preparation of the Q-sorts. Each stack of statements should be shuffled between uses, however, so that the arrangement of one respondent does not influence the arrangement of the next respondent who uses that Q-sort stack. Administration to a large group instead of several small groups also raises the cost of making the Q-sort because so many more copies of the Q-sort are needed. One

of the easy things about using Q-sorts in instruction is that you can have each student cut up his or her own Q-sort at home. Those students who decide not to cut up the statements, however, would yield invalid data. The teacher can guard against such a problem by having each student return the cut-up Q-sort in an envelope attached to the response form.

Respondents have difficulty finding their own errors in a Q-sort because of the time required to go back and check each statements. The teacher or person entering the data needs to double-check for respondent mistakes. One problem this author experienced in using a computer printed Q-sort was that the appearance of number "36" and "38" were so similar that some respondents recorded "36" twice instead of both numbers. The teacher can generally correct such problems by looking at the content of responses to determine where the statements would most logically go. Another way of handling such problems is to put missing statements in the neutral-middle area. An occasional respondent mistake will not significantly alter the data.

Another respondent problem that occurs in research is the person who does not follow directions because he or she lacks the ability or desire to do so. The responses of such individuals probably will fail to load on factors with other respondents. The teacher and students should pay attention to loadings with only a few respondents because they

represent a unique--although less common--person-type. The respondents who fail to load on any type probably represent persons who did not respond accurately on their Q-sort. In study using children (Nitcavic & Aitken, 1988), this author has found the technique ineffective with mentally retarded students. Apparently they cannot handle the complexity of the Q-sorting procedure.

Anyone using a Q-sort should consider the various discussions about the advantages and statistical soundness of using a structured Q. One concern in using a forced-choice grid is whether or not people who apply their responses to a grid structure will be "made the same" artificially (see Brown, 1971). Instructing respondents to work from the two extremes toward the neutral-middle area, however, seems to solve that problem. Although people may differ in their intensity of feelings about the statements and their agree-disagree balance, this procedure should allow a viable method for each respondent.

Although not a mandatory step when using Q-Technique for instruction, a teacher can determine Q-sort reliability by having some respondents re-sort the statements and then compare the first and second sort. After an initial administration of a Q-sort, the teacher may chose to modify statements, particularly by omitting (or substituting) statements that generate the same response by all respondents and use them again with other classes. Because

students learn so much in generating the statements to be used in the Q-sort, new measures for each class seem the most instructionally valid approach. Some researchers use Q to develop measures and then convert them to a normative form using a Likert-type scale. Although Stephenson does not approve of this procedure (personal conversation, January, 1987), such techniques may be appropriate depending upon the teacher's objectives.

Student Perspective. Over the years, this author has used Q-methodology as a research method in a variety of contexts. After one study using students, several students mentioned on their course evaluation form that the Q-sort was "the most interesting" and the "most thought provoking" part of the course. During a mid-semester and final evaluation of the first course using Q as the major instructional technique, the students indicated that they considered the use of Q to be a valuable and interesting learning tool. With "10" representing the learning techniques used in the best class and "1" representing techniques of the poorest class they have had in college, the mean student response rating of Q-Technique was "7." Some example student comments included: "It produced a sense of accomplishment because the whole study--from start to finish--was our own doing....It is a chance to sort out one's thoughts....I really could relate to the factors that I fell into....It makes you really dig deep....I'll never

forget these Q studies because they forced me to sit down and take some time to evaluate who I am and what I believe....Made me think about my values....I felt overwhelmed by all the information....The Q studies made me feel better about those around me as well as myself....Very interesting and fun....They really did make me think....I was involved in the process."

The students appeared to learn the basic principles of Q-Methodology in addition to interpersonal communication, and did so in an interested and involved manner. The use of Q seemed more creative and applied than more traditional teaching methods. After success with those students, Q-Technique has met with a favorable response from students in two subsequent courses.

The Alcohol and Communication Q-Sort Example

Students in one class decided to study the effects of alcohol use on one's interpersonal communication. This example is used not because it relates to the study of humanities, but because it was probably the easiest Q-sort the author ever compiled and analyzed. The Q-sort and results are easy to grasp as a demonstration of how the process works. The Q-sort represents a minimum of time in preparation, yet provided thought-provoking results that stimulated extensive student class discussion.

Students were encouraged to do library research on the topic prior to conducting an interview. They conducted an

interview with a friend about drinking and recorded statements. Because so many statements did not discuss specifically how alcohol affects communication, virtually every related statement was used in the Q study. Nothing was done to determine whether the agree-disagree balance was appropriate, and no changes were made other than correcting severe grammatical errors. Thus, the statements were used as the students wrote them. The teacher gave students the completed Q-sort, which each student gave to a friend and himself or herself, resulting in 47 responses. One should note that the resulting three factors or "types" differed little in their disagree statements. The primary differences were in their selection of agree statements.

Because the computer can be told to indicate any number of factors, the instructor decided to use only three factors (prototypes). Although a different solution might have been worthwhile because more students would have loaded significantly if more factors had been used, past experience indicated that students have difficulty analyzing the nuances of more than two or three different factors. Below is a summary of the three types. One should note that type one and type three had a strong correlation. The program gave a printout of a descending array of Z-scores and item descriptions for each type. Photocopies were made of this portion of the results and factor loadings, then distributed to students. The students were assigned to study the

results, then write a paragraph analyzing each type. Students brought the results and their analyses to class. Students were then assigned to discuss results first in pairs, then as a class as a whole. By conducting class discussion, the teacher could guide the students in their analysis after they thought about the information on their own.

Type 1: The Social Drinker. These student like to drink socially, but believe in moderation. Alcohol is not necessary for a good time, in fact, it's a bad idea in business situations. Drinking can, however, help students feel more relaxed and freer to talk to others. Alcohol should not be used as an escape. These students' parents are not big drinkers. The views about drinking has changed among these students during the past years. They have negative views about drunkenness and are able to tell friends when they are too drunk to drive. Twenty-four students loaded significantly on this type.

Type 2: The Nondrinker. These students prefer parties without alcohol. They think it is a mistake to "release" through alcohol and hate meeting people who are "plastered." Nondrinkers command more respect than drinkers. They think that heavy drinkers abuse other people. They seem disinclined to drink because others are drinking, don't believe in serving minors, and disapprove of using alcohol

to get over the rough spots. Five students loaded positively on this factor and three loaded negatively.

The students who loaded negatively reported that they "loved to party." In fact, one of these students was hung-over and fell asleep during the same class session in which the students discussed the results of the study. The two students who led the crusade to conduct the study loaded negatively on factor this factor, indicating they were heavy, perhaps problem, drinkers. Those two students may have hoped to find support for their attitudes through the study, when in fact, there was no such agreement from the class.

Type 3: The Closet Drinker. For these students, alcohol creates some turmoil. They are curious about becoming drunk. Although alcohol makes them feel more comfortable talking to strangers, they still feel self-conscious when drinking. They seem unsure of what alcohol does to themselves and others, believing that alcohol causes distortion in communication. These students have an interesting mix of responses, and in fact, the class had difficulty explaining the type. Two students who loaded positively on this factor talked to the teacher after class, however, and they indicated that although drinking was against their religion and against their parents' beliefs, they were social drinkers. Three students loaded positively on this factor.

Of the forty-seven students, thirteen failed to load significantly on any of the three factors. Nine of these loaded highest on factor one, two on factor two, and two on factor three. Two of the students who failed to load significantly on any factor reported having personal problems with a friend or family member who was an alcoholic. Two were older, quite assertive students. Although most of these students had some similarity to factor one, they also had independent elements in their thinking processes that resulted in nonsignificant loadings.

Conclusions

Q-Technique is unique, interesting, and successful in providing students with a means for studying the subjective nature of things. In this paper, the author has tried to provide sufficient detail to enable a newcomer to try Q-Technique in the classroom, including some helpful references (e.g. Brown, 1980; and Operant Subjectivity--an inexpensive journal that deals exclusively with Q research).

There are several computer programs available to analyze Q data: PCQ by Strickland; CENSORT for mainframes and personal computers, by Knabe and Talbott, the University of Iowa; Stephenson's ROSETTA; QMAP by Timothy Stephen, Rensselaer Polytechnic Institute, NY; Hanley's PC program, Vantubergen's QUANL for mainframes; Brown's JINNI for mainframes, and Barchak's statement program, McNeese State University, LA. The CENSORT program attempts to build

carefully upon Stephenson's premises and appears quite user friendly. For those who prefer to pay to have someone else run the data before investing in a program, they can find help from Donald J. Brenner, Director, The William Stephenson Research Center, School of Journalism, University of Missouri, Columbia, Missouri, 65205. Such use of the computer in humanities instruction should not be prohibitive because educators already have shown the value of using mediated education, including the role of computers in humanities education (i.e. Oakman, 1975; Dayton, 1982; and Howard, 1987).

Even without doing the computer analysis, students find the sorting process one that encourages them to think. In this day in which faculty are trying to improve the critical thinking processes of students--particularly through interdisciplinary study--Stephenson's Q-Technique appears to be a teaching technique made to order. In their discussion of the nature of humanities education, Simpson and Gray (1976) wrote:

> "The humanities is one of those broad rubrics that has come to mean many different things to many people. Behaviorists, scholars, and teachers alike group themselves under its banner, though they festoon it with different emblems and often march in different directions....The experiential bases of the traditional humanities must be broadened and the ordinary, the

> personal, included. Belief in the examined life must admit new routes to that examination: passion, sensuality, intuition, imagery--subjective truth invented by each participant and not inherited. (pp. 5-6)

Such an approach is what Q-Technique allows the teacher of humanities to do: join their students in the search for a subjective truth.

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Appendix 1: Q Sort of the Effects of Alcohol Use on Interpersonal Communication

1. When people drink heavily, they become hostile and belligerent.
2. A person who has been drinking heavily becomes sadistic and antagonistic.
3. Children or spouses of people who drink heavily become very self-conscious.
4. Alcohol reduces inhibitions in communication.
5. Alcohol creates a false sense of courage.
6. Drinking alcohol causes a person to say thing they don't mean.
7. Consumption of alcohol strains the relationship between a husband and a wife (boyfriend-girlfriend).
8. Heavy drinkers verbally abuse their family and loved ones.
9. When you meet a person who has been drinking, you are not meeting the real person.
10. I don't like to drink that much, but I feel like I stand out too much if there's not a glass in my hand.
11. When someone is drunk, I don't even try to talk to them.
12. I would go to a big party even though no alcohol would be served.
13. I become less self-conscious after drinking.

14. When I drink, I feel more open and comfortable talking to strangers.
15. Bars (parties) are good places to get rowdy, meet with friends, and blow off school.
16. Alcohol can help communication, but too much can be disasterous on communication.
17. In a restaurant, alcohol helps create a mood for serious conversation.
18. On first impression, if have someone has alcohol breath, it turns me off so I'm not interested in pursuing the conversation.
19. It's not smart for teenagers and young adults to release all their inhibitions with alcohol.
20. My views on drinking have not changed over the past ten years.
21. I usually am not as nervous when I meet someone for the first time if I've had a drink
22. I hate to meet people who are plastered.
23. Drinking effects my perception of people.
24. Some commercials and media make me feel like my life would be more glamorous if I drink.
25. My ideas about people seem distorted if I've had a lot to drink.
26. Drinking is bad for your image.
27. Drinking tends to lower one's inhibitions and reluctance.

28. In most experiences with people who are drinking, I find that they tend to become more relaxed and interact with those around them more.
29. If one of my good friends drinks excessively and acts really stupid every once in a while, my opinion of them doesn't change.
30. When I drink I tend to become an extrovert.
31. Guys drink socially because it's something that's been passed along time--a guy goes out to have a drink with the boys.
32. I feel that alcohol isn't such a great idea when conducting business negotiations--one should be level-headed when doing so.
33. I feel that the media has a major effect on people's drinking habits. I've seen people try to do some stupid things they've seen on t.v.
34. I used to cling to my drink at parties because I was insecure, but now I can drink or not drink at parties. I don't feel like it necessary.
35. It's hard to tell a person that they are too drunk to drive.
36. When at a bar, a drink is sometimes the only thing in common with other people.
37. My parents always drink when they go out.
38. People seem to find imaginary friends when drunk and talk to them.

39. Drinking is a communication medium.
40. When I drink I tend to be less tactful.
41. It is sometimes awkward to talk to someone who has had a few drinks when I am sober.
42. I sometimes wonder what it would be like to get drunk. I wonder how I would communicate in that situation.
43. Women are less affected by peer pressure (to drink).
44. It is okay to serve alcohol to minors who have graduated from high school but not to high schoolers because of their maturity.
45. I feel people have more respect for people who don't drink than for those who do drink.
46. How I perceive someone is changed by noticing the type of drink they are drinking.
47. Drinking helps relationships over troubled times.
48. I am more warm-hearted when drinking.
49. I am more likely to lie if I have been drinking.
50. People who do not drink at bars or parties are viewed as conservative and not as social.
51. At high school and college parties people who get drunk are better accepted than those who do not drink.
52. I become less attentive to others the more I drink.
53. Drinking becomes a contest with some people, "who can drink the most?"

Appendix 2: Q Sort

Effect of Alcohol on Communication

INSTRUCTIONS: You have been given a stack of 52 statements. These statements relate to the effect of alcohol on communication. Think about your communication in these situations. Please sort these statements according to your first impression, how you feel today.

Step 1. Begin by reading the statements and placing them in 3 piles: (1) those you agree with, (2) those you disagree with, and (3) those you feel neutral or undecided about.

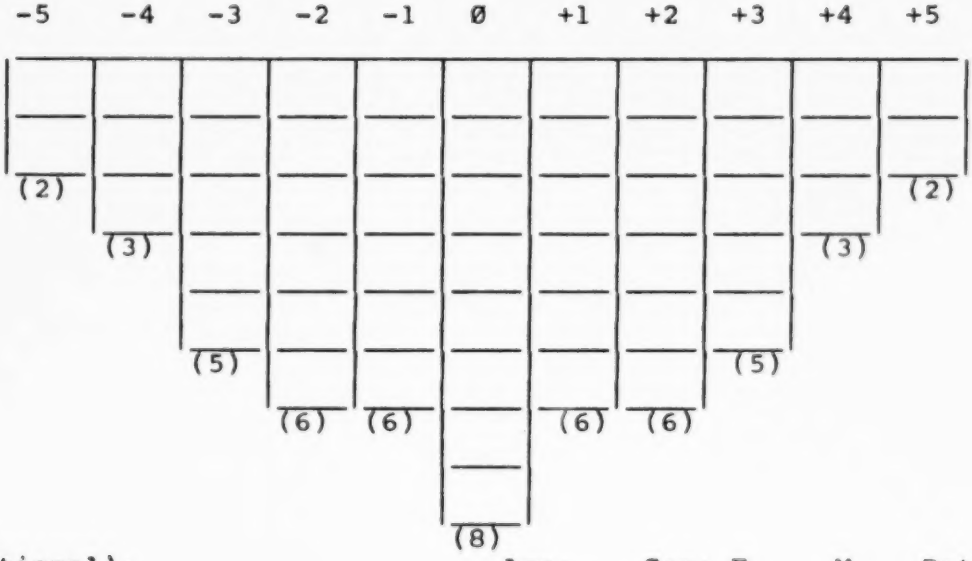
Step 2. Then take your "agree" pile and select from it the 2 statements with which you agree most strongly. Record the numbers on those statements in the 2 squares in the far-right ("+5") column of the figure below. From the remaining "agree" statements choose the 3 with which you agree next most strongly and record their numbers in the column with a "+4" over it. Repeat this procedure until there are no remaining statements in your "agree" pile.

Step 3. Next, take your "disagree" pile and follow the same procedure, except begin with the far-left ("-5") column for your "most disagree" statements. Continue to work toward the middle until you have recorded the numbers of all your "disagree" statements. You probably will not have equal numbers of agree and disagree statements, which is fine.

Step 4. Finally, take your "undecided" pile and arrange these statements in the middle. If you agree slightly with the statement, place its number toward the right and if you disagree slightly, place its number toward the left of the neutral area. Remember, it doesn't matter whether the agree-disagree balance is exact. Simply work from the extremes toward the middle, and your answers will be recorded correctly.

Be sure to put a number in every box. Use each number only once. (THIS IS VERY IMPORTANT). When you are finished, return this sheet and the stack of statements. Remember to complete the information items at the bottom of the page.

MOST DISAGREE NEUTRAL AREA MOST AGREE



Name (optional):_____ Age:___ Sex: F___ M___ Date:____

Please double check to make sure you have recorded a number in every box, and recorded each number only once. Thank you.